REMARKS

This application has been carefully reviewed in light of the Office Action dated October 6, 2003. Claims 1 to 100 remain in the application. Claims xx, and xx to xx have been amended. Claims 1, 2, 22, 23, 24, 25, 45, 46, 47, 49, 50, 51, 52, 53, 56, 58, 59, 61, 68, 71, 72, 73, 79, 81, 85 and 86 are the independent claims. Reconsideration and further examination are respectfully requested.

Claims 3, 9, 10, 26, 32, 33, 53, 56, 58, 59, 65, 76 and 88 were rejected under 35 U.S.C. § 112, second paragraph, for the term "the most common one" allegedly being indefinite. The term has been amended to make it even clearer that the image data attached to the electronic mail data is in a common image data format standard utilized by, for example, G3/G4 facsimile machines, which as defined in the specification at page 62, lines 7 to15, may comprise a standard resolution or A4 size paper. Thus, Applicant submits that the claims are clear, both on their face and when read in light of the specification. Accordingly, withdrawal of the rejection is respectfully requested.

Claims 18, 22, 23, 45, 49 and 50 were also rejected under § 112, second paragraph. The rejection of Claim 18 is traversed, while the remaining claims have been amended to make the subject matter even clearer. Regarding Claim 18, Applicant submits that the term "switched on the basis of" is not ambiguous since it is clear from the claim that, when an address of the other party is input, the information displayed on the display is switched based on the functional information relating to the input address contained in the database. Thus, Claim 18 is believed to be clear. In view of the foregoing, withdrawal of all of the § 112 rejections is respectfully requested.

Claims 1 to 4, 7 to 15, 23, 25 to 27, 30 to 38, 42, 43, 45 to 67, 71, 72, 82 and 84 to 100 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,600,750 (Joffe) in view of allegedly admitted prior art described in the specification, Claims 5, 6, 22, 28 and 29 were rejected under § 103(a) over Joffe in view of the allegedly admitted prior art and further in view of U.S. Patent No. 6,124,947 (Seo), Claims 16 to 20, 24, 39 to 41, 68 to 70, 73 to 80 and 83 were rejected under § 103(a) over Joffe in view of the allegedly admitted prior art and further in view of U.S. Patent No. 6,356,356 (Miller), and Claims 21 and 44 were rejected under § 103(a) over Joffe in view of the allegedly admitted prior art and further in view of U.S. Patent No. 6,535,303 (Wolf). It is noted that the Office Action overlooked Claim 81, but Applicant wishes to confirm that Claim 81 has been rejected for the same reasons as Claim 85 since the two claims include similar subject matter. Reconsideration and withdrawal of the rejections are respectfully requested.

The present invention concerns communication between facsimile machines that can transmit/receive e-mail in which image data is attached to the e-mail in a facsimile format. Conventionally, facsimile machines can exchange data over a phone line, whereby the transmitting machine establishes communication with the receiving machine, and in the process, exchanges functional capabilities information (e.g., type of machine, paper size, printed resolution, etc.) between the two machines. The transmitting machine then scans and converts the document into an appropriate format based on the functional information of the receiving machine. This process, however, takes time on the phone network and is subject to disconnection errors, etc.

Some facsimile machines are also capable of receiving e-mail messages that have document data attached so the facsimile machine can printout the document. In these

conventional machines, the receiving facsimile merely receives the e-mail message and processes the received message. In this system, the e-mail is transmitted to the receiving device without communicating any functional information between the devices. As a result, the transmitting device may generate the attached document in a format not supported by the receiving machine. For example, the document input at the transmitting side may be generated in A4 size paper with a 600 dpi resolution, but the receiving machine may only be able to process letter size (8 ½ x 11) documents and may only print in 300 dpi resolution. Thus, the receiving device may be unable to properly process the received document. Moreover, there is no way for the party transmitting the document by e-mail to know whether or not the document was successfully received/processed by the receiving device. That is, confirmation of success of the transmission is normally not provided when facsimiles are transmitted by e-mail.

Thus, in one aspect, the present invention addresses the foregoing by performing communication pertaining to functional information in addition to communication of the electronic mail data having facsimile-format image data attached thereto. As a result, the e-mail message includes functional information with the attached document data so that the receiving device can confirm that the document can be processed properly.

With specific reference to the claims, Claim 1 is a communication apparatus comprising means for transmitting/receiving electronic mail data by connecting to the Internet, and means for communicating the electronic mail data with facsimile-format image data attached thereto by performing communication pertaining to functional information in addition to the communication of the electronic mail data.

Claims 51 and 52 are method and computer-readable medium claims, respectively, that substantially correspond to Claim 1.

Claim 2 includes features along the lines of Claim 1, but more specifically is a communication apparatus comprising first connecting means for connecting to a local area network and/or second connecting means for connecting to a wide area network, first communicating means for transmitting/receiving electronic mail data by connecting to the Internet by one of the first and second connecting means, and second communicating means for performing facsimile communication by connecting to the wide area network by the second connecting means, wherein communication concerning functional information is performed when said first communicating means communicates electronic mail data having image data attached.

Claim 25 is a computer-readable storage medium claim that substantially corresponds to Claim 2.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of independent Claims 1, 2, 25, 51 and 52. More particularly, the applied art is not seen to disclose or to suggest at least the feature of performing communication concerning functional information in addition to communication of electronic mail data having image data attached.

Joffe is merely seen to disclose that an e-mail message having a TIFF fax document attached is sent over a network to a mail server. The e-mail message is sent by the mail server to at least one edge router. The edge router that receives the e-mail, transforms the e-mail into a fax message by parsing the e-mail contents of the message and processing the TIFF file and transmits the same over a PSTN to a receiving fax machine.

To save disk space in the edge router, the edge router sends the e-mail message back to the mail server, together with contents information indicating how much of the message has been processed. The mail server then re-sends the e-mail message back to the edge router, whereby the edge router performs further processing of the message. This loop-type of message transmission continues until the entire e-mail message has been processed by the edge router and transmitted to the fax machine. Thus, Joffe merely transmits an e-mail with a TIFF file attached to a mail server and an edge router, but Applicants fail to see where communication of functional information is performed in addition to communication of electronic mail data having image data attached. Thus, Claims 1, 2, 25, 51 and 52 are believed to be allowable over Joffe.

The allegedly admitted prior art, Seo, Miller and Wolf have been studied, but are not seen to add anything that, when combined with Joffe, would have rendered the present invention obvious. More particular, like Joffe, none of Seo, Miller and Wolf are seen to disclose or to suggest at least the feature of performing communication concerning functional information in addition to communication of electronic mail data having image data attached.

In view of the foregoing deficiencies of the applied art, Claims 1, 2, 25, 51 and 52, as well as the claims dependent therefrom, are believed to be allowable.

In a related aspect of the invention, if a communication error occurs when electronic mail data having image data attached is communicated, electronic mail is sent by attaching image data by one of image standards which a communication partner is able to process. With this aspect, if the error occurs during the communication, the image data of the facsimile document is converted into a format that the partner is able to process, i.e., a

format generally used by all facsimile machines (e.g., the most common resolution and/or paper size), and an e-mail is sent with the converted data. Thus, it can more readily assured that the receiving side can process the image data attached to the e-mail.

Referring specifically to the claims, independent Claim 22 is a communication apparatus comprising first communicating means for transmitting/receiving electronic mail data by connecting to the Internet, and means for sending electronic mail by attaching image data by one of image standards which a communication partner is able to process, if a communication error occurs when the first communicating means communicates electronic mail data having image data attached.

Claims 45 and 49 are computer-readable medium and method claims, respectively, that substantially correspond to Claim 22.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of Claims 22, 45 and 49. More particularly, the applied art is not seen to disclose or to suggest at least the feature of sending electronic mail by attaching image data by one of image standards which a communication partner is able to process if a communication error occurs when communicating electronic mail data having image data attached.

Joffe is not seen to disclose anything with regard to how errors in communication of the e-mail message are handled, much less that if a communication error occurs, an electronic mail is sent by attaching image data by one of image standards which a communication partner is able to process. Accordingly, Claims 22, 45 and 49 are believed to be allowable over Joffe.

The allegedly admitted prior art, Seo, Miller and Wolf are not seen to add anything to make up for the foregoing deficiencies of Joffe, and in particular, are not seen to disclose or to suggest at least the feature of sending electronic mail by attaching image data by one of image standards which a communication partner is able to process if a communication error occurs when communicating electronic mail data having image data attached.

In view of the foregoing, Claims 22, 45 and 49, as well as the claims dependent therefrom, are believed to be allowable over the applied art.

In another related aspect of the invention, a user can designate the image format, whereby functional information of the other party is requested pertaining to the designated format, but no request is made if the designated format is one which the other party is able to process. With this aspect, if the user designates a format for the image data to be attached to the e-mail that is one not generally used by most facsimile machines, then the functional information of the receiving machine is requested to determine whether or not the receiving machine can process the designated format. However, if the designated format is a common format (e.g., a common page size and resolution), no request is made. As a result, it can be more readily assured that the image data attached to the e-mail is in a proper format for processing by the receiving machine.

Referring specifically to the claims, Claim 23 is a communication apparatus comprising first communicating means for transmitting/receiving electronic mail data by connecting to the Internet, means for designating an image format including a resolution of image data, and means for requesting functional information, pertaining to the designated image format, of another party, wherein functional information of the other party is not

requested if the designated image format is an image format which the other party is able to process.

Claims 46 and 50 are computer-readable medium and method claims, respectively, that substantially correspond to Claim 23.

Claim 71 is along the lines of Claim 23, but is more specifically a communication apparatus comprising first communicating means for transmitting/receiving electronic mail data by connecting to the Internet, means for designating an image format including a resolution of image data, and means for requesting functional information, pertaining to the designated image format, of a communication partner, wherein if functional information of the communication partner is known, the functional information of the communication partner is not requested.

Claims 81 and 85 are computer-readable medium and method claims, respectively, that substantially correspond to Claim 71.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of Claims 23, 46, 50, 71, 81 and 85. More particularly, the applied art is not seen to disclose or to suggest at least the feature of requesting functional information, pertaining to a designated image format, of another party (communication partner), wherein functional information of the other party (communication partner) is not requested if the designated image format is an image format which the other party (communication partner) is able to process, or if the functional information of the communication partner is known.

Joffe is merely seen to disclose that the fax document is converted into a TIFF format and attached to an e-mail. However, Joffe is not seen to disclose anything

with regard to requesting functional information pertaining to a designated image format of a receiving party, but not requesting the functional information if the designated format is one which the other party is able to process, or if the functional information of a communication partner is known. Accordingly, Claims 23, 46, 50, 71, 81 and 85 are believed to be allowable over Joffe.

The allegedly admitted prior art, Seo, Miller and Wolf are not seen to add anything that, when combined with Joffe, would have overcome the foregoing deficiencies, and in particular, are not seen to disclose or to suggest at least the feature of requesting functional information, pertaining to a designated image format, of another party, wherein functional information of the other party is not requested if the designated image format is an image format which the other party is able to process, or if the functional information of the communication partner is known.

In view of the foregoing deficiencies of the applied art, Claims 23, 46, 50, 71, 81 and 85, as well as the claims dependent therefrom, are believed to be allowable.

In another related aspect of the invention, when electronic mail data having image data attached is to be communicated over the Internet, electronic mail concerning pieces of functional information pertaining to the same process, electronic mail of a text, and electronic mail concerning delivery confirmation, are related to each other.

With specific reference to the claims, Claim 24 is a communication apparatus comprising first communicating means for transmitting/receiving electronic mail data by connecting to the Internet, and an identifier for relating pieces of electronic mail concerning pieces of functional information pertaining to the same process to each other,

when the first communicating means is to communicate electronic mail data having image data attached.

Claim 47 is a computer-readable medium claim that substantially corresponds to Claim 24.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of Claims 24 and 47, and in particular, is not seen to disclose or to suggest at least the feature of, when electronic mail data having image data attached is to be communicated over the Internet, relating electronic mail concerning pieces of functional information pertaining to the same process, electronic mail of a text, and electronic mail concerning delivery confirmation, to each other.

Joffe is not seen to disclose anything with regard to relating pieces of e-mail to each other, much less relating electronic mail concerning pieces of functional information pertaining to the same process, electronic mail of a text, and electronic mail concerning delivery confirmation, to each other when electronic mail data having image data attached is to be communicated by said first communication procedure. Accordingly, Claims 24 and 47 are believed to be allowable over Joffe.

The alleegedly admitted prior art, Seo, Miller and Wolf are not seen to add anything to overcome the foregoing deficiencies of Joffe, and in particular, are not seen to disclose or to suggest at least the feature of, when electronic mail data having image data attached is to be communicated over the Internet, relating electronic mail concerning pieces of functional information pertaining to the same process, electronic mail of a text, and electronic mail concerning delivery confirmation, to each other.

In view of the foregoing deficiencies of the applied art, Claims 24 and 47, as well as the claims dependent therefrom, are believed to be allowable.

In another related aspect, delivery confirmation information is received when electronic mail data having image data attached is communicated, and a communication result report is output which indicates one of information representing that communication of image information is successful, information representing that communication of image information has failed, information representing that a communication result of image information is unverified, and information representing that the electronic mail data has been communicated by attaching image data corresponding to a common image data format standard. As a result, the transmitting device can know whether the image data was formatted in a form that the receiving device can successfully process.

Referring specifically to the claims, Claim 53 is a communication apparatus comprising first connecting means for connecting to a local area network and/or second connecting means for connecting to a wide area network, first communicating means for transmitting/receiving electronic mail data by connecting to the Internet by one of the first and second connecting means, and means for receiving information on delivery confirmation by the first communicating means, wherein when the first communicating means communicates electronic mail data having image data attached, a communication result report is output which indicates one of information representing that communication of image information is successful, information representing that communication of image information has failed, information representing that a communication result of image information is unverified, and information representing that the electronic mail data has

been communicated by attaching image data corresponding to a common image data format standard.

Claims 58 and 59 are method and system claims, respectively, that substantially correspond to Claim 53.

Claim 56 includes features along the lines of Claim 53, but is more specifically directed to a communication apparatus comprising first communicating means for transmitting/receiving electronic mail data by connecting to the Internet, and second communicating means for performing facsimile communication by connecting to a wide area network, wherein when the first communicating means communicates electronic mail data having image data attached, a communication result report is output which indicates one of information representing that communication of image information is successful, information representing that communication of image information has failed, information representing that a communication result of image information is unverified, and information representing that the electronic mail data has been communicated by attaching image data corresponding to a common image data format standard, and, when the second communicating means performs communication, a communication result report indicating one of information representing that communication of image information is successful and information representing that communication of image information has failed is output.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of Claims 53, 56, 58 and 59. More particularly, the applied art is not seen to disclose or to suggest at least the feature of, when electronic mail data having image data attached is communicated, a communication result report is output which indicates one of information representing that communication of image information

is successful, information representing that communication of image information has failed, information representing that a communication result of image information is unverified, and information representing that the electronic mail data has been communicated by attaching image data corresponding to a common image data format standard.

Joffe is merely seen to disclose that the e-mail is sent by the transmitting side to the mail server, with no knowledge of whether or not the printout by the receiving facsimile machine was successful. Moreover, Joffe is not seen to disclose anything with regard to outputting a communication result report when the e-mail is sent, much less that the report includes one of information representing that communication of image information is successful, information representing that communication of image information has failed, information representing that a communication result of image information is unverified, and information representing that the electronic mail data has been communicated by attaching image data corresponding to a common image data format standard. Accordingly, Claims 53, 56, 58 and 59, are believed to be allowable over Joffe.

The allegedly admitted prior art, Seo, Miller and Wolf are not seen to add anything to overcome the foregoing deficiencies of Joffe, and in particular, are not seen to disclose or to suggest at least the feature of, when electronic mail data having image data attached is communicated, a communication result report is output which indicates one of information representing that communication of image information is successful, information representing that communication of image information has failed, information representing that a communication result of image information is unverified, and

information representing that the electronic mail data has been communicated by attaching image data corresponding to a common image data format standard.

In view of the foregoing deficiencies of the applied art, Claims 53, 56, 58 and 59, as well as the claims dependent therefrom, are believed to be allowable.

In another related aspect of the invention, information pertaining to functional information is held in a database so that, when electronic mail data having image data attached is to be communicated, the transmitting device can determine an appropriate format to convert the attached image data into by referring to the functional information of the receiving device held in the database. As a result, it can be more readily assured that the attached image data is converted into a format that the receiving device can process, thereby reducing the possibility of transmission errors.

Referring specifically to the claims, Claim 61 is a communication apparatus comprising first connecting means for connecting to a local area network and/or second connecting means for connecting to a wide area network, first communicating means for transmitting/receiving electronic mail data by connecting to the Internet by one of the first and second connecting means, and a database for holding information pertaining to functional information, wherein the first communicating means communicates electronic mail data having image data attached.

Claim 72 includes features along the lines of Claim 61, but more specifically is a communication apparatus comprising first communicating means for transmitting/receiving electronic mail data by connecting to the Internet, second communicating means for performing facsimile communication by connecting to a wide area network, and a database for holding information concerning functional information,

wherein the first communicating means communicates electronic mail data having image data attached.

Claim 73 is a computer-readable medium claim that substantially corresponds to Claim 72.

Claim 68 also includes features along the lines of Claim 61, but more specifically is a communication system comprising a plurality of communication apparatuses each of which comprises, first connecting means for connecting to a local area network and/or second connecting means for connecting to a wide area network, first communicating means for transmitting/receiving electronic mail data by connecting to the Internet by one of the first and second connecting means, and a database for holding information concerning functional information, wherein each apparatus communicates electronic mail data having image data attached by the first communicating means, wherein on the basis of information about broadcast of a database pertaining to the functional information from an electronic mail server to which the plurality of communication apparatuses are connected and which distributes electronic mail data to the plurality of communication apparatuses, the database of each communication apparatus is updated to allow the plurality of communication apparatuses to share the contents of the databases.

Claim 79 is a system claim that substantially corresponds to Claim 68.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of Claims 61, 68, 72, 73 and 79, and in particular, is not seen to disclose or to suggest at least the feature of holding information pertaining to functional information in a database in a device that communicates electronic mail data having image data attached. In addition, with reference to Claims 68 and 79, the applied

art is also not seen to disclose or to suggest at least the feature of, wherein on the basis of information about broadcast of a database pertaining to the functional information from an electronic mail server to which a plurality of communication apparatuses are connected and which distributes electronic mail data to the plurality of communication apparatuses, the database of each communication apparatus is updated to allow the plurality of communication apparatuses to share the contents of the databases.

Joffe is not seen to disclose anything with regard to maintaining a database of functional information in the transmitting device. Moreover, Joffe is not seen to disclose anything with regard to information about broadcasting of a database by a mail server, where the database of each communication apparatus is updated to allow the plurality of communication apparatuses to share the contents of the databases. Accordingly, Claims 61, 68, 72, 73 and 79 are believed to be allowable over Joffe.

The allegedly admitted prior art, Seo, Miller and Wolf are not seen to add anything to overcome the deficiencies of Joffe, and in particular, are not seen to disclose or to suggest at least the feature of holding information pertaining to functional information in a database in a device that communicates electronic mail data having image data attached, or at least the feature of, wherein on the basis of information about broadcast of a database pertaining to the functional information from an electronic mail server to which a plurality of communication apparatuses are connected and which distributes electronic mail data to the plurality of communication apparatuses, the database of each communication apparatus is updated to allow the plurality of communication apparatuses to share the contents of the databases.

In view of the foregoing deficiencies of the applied art, Claims 61, 68, 72, 73 and 79, as well as the claims dependent therefrom, are believed to be allowable.

In another related aspect, communication pertaining to functional information is performed with a communication partner registered in an electronic mail address registration function when a mail address is registered in an electronic mail address registration function, and the functional information with respect to an item, corresponding to the registered electronic mail address, is registered or updated in a database.

Referring specifically to the claims, Claim 86 is a communication method of transmitting/receiving electronic mail data by connecting to the Internet, comprising the steps of performing communication pertaining to functional information, when a mail address is registered in an electronic mail address registration function, with a communication partner apparatus registered in the electronic mail address registration function, and registering or updating the functional information with respect to an item, corresponding to the registered electronic mail address, in a database.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of Claim 86, and in particular, is not seen to disclose or to suggest at least the feature of performing communication pertaining to functional information, when a mail address is registered in an electronic mail address registration function, with a communication partner apparatus registered in the electronic mail address registration function, and registering or updating the functional information with respect to an item, corresponding to the registered electronic mail address, in a database.

As stated above, Joffe is not seen to disclose anything with regard to maintaining a database of functional information. Therefore, Joffe is also not seen to

disclose or to suggest registering or updating the functional information with respect to an item, corresponding to the registered electronic mail address, in a database. Accordingly, Claim 86 is believed to be allowable over Joffe.

The allegedly admitted prior art, Seo, Miller and Wolf are not seen to add anything to overcome the deficiencies of Joffe, and in particular, are not seen to disclose or to suggest at least the feature of performing communication pertaining to functional information, when a mail address is registered in an electronic mail address registration function, with a communication partner apparatus registered in the electronic mail address registration function, and registering or updating the functional information with respect to an item, corresponding to the registered electronic mail address, in a database.

In view of the foregoing deficiencies of the applied art, Claim 86, as well as the claims dependent therefrom, are believed to be allowable over the applied art.

No other matters having been raised, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

Attorney for Applicants

Registration No. 42,746

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-2200
Facsimile: (212) 218-2200

CA_MAIN 75384 v 1